

## ABSTRACT

INTEGRATED CIRCUIT

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An integrated circuit comprises a biasing circuit for maintaining the transconductance of a Gm cell constant. The integrated circuit comprises an on-chip constant voltage source and an on-chip constant current source.

10 The on-chip constant current source has a connection for an external resistance, the value of the external resistance determining the current generated by the constant current source. The biasing circuit comprises means for providing a first fraction ( $\beta$ ) of the current  
15 generated by the on-chip current source to bias the output of the Gm cell, and means for providing a second fraction ( $\alpha$ ) of the voltage generated by the on-chip voltage source to bias the input of the Gm cell. The transconductance of the Gm cell is controlled to be  
20 equal to the ratio of said fraction of the current generated by the on-chip current source to said fraction of the voltage generated by the on-chip voltage source.

25 *Figure 3 to accompany abstract*